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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,647	01/10/2002	Steven I. Ross	1280.2005-000 (LOT8-2001-	9383
21005	7590	10/03/2005	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133				
			ART UNIT	PAPER NUMBER
			2655	

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/044,647

Applicant(s)

ROSS ET AL.

Examiner

Brian L. Albertalli

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 18, 2005 has been entered.

### ***Information Disclosure Statement***

2. In the Information Disclosure Statement filed July 18, 2005, a reference "Douglas" was identified as patent number 5,818,977. However, it is noted that patent number 5,818,977 is actually issued to "Tansley". The Examiner has identified a patent issued to Douglas (U.S. Patent 5,812,977) which appears to be the intended reference to be submitted by the Applicant. The Examiner has included Douglas (5,812,977) on the Notice of References Cited, and has considered both Douglas (5,812,977) and Tansley (5,818,977).

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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4. Claims 13-18 and 20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 13-18 and 20 are drawn to a "program" *per se* as recited in the preamble and as such is non-statutory subject matter. See MPEP § 2106.IV.B.1.a. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

Regarding claims 13-18, the claimed "computer program product" comprising "a computer usable medium" is defined by the specification on page 7, lines 13-17 as

possibly being "propagation medium". A "propagation medium" is defined on page 7, lines 3-13 as being a "signal" such as a radio wave, infrared wave, laser wave, sound wave, electrical wave, etc. This would be a non-tangible medium thereby not meeting the requirements of 35 U.S.C. 101. It is suggested that "computer usable medium" be changed to --tangible computer usable program product--.

Regarding claim 20, the claim is directed to the "propagated medium" itself, which, as explained above, is not a tangible medium meeting the requirements of 35 U.S.C. 101, and is thus similarly rejected.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3-7, 9-13, and 15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Badt et al. (U.S. Patent 6,542,868)

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

In regard to claims 1, 7, 13, 19, and 20, Badt et al. disclose a computerized interface, computer program product, and computer usable propagated medium for managing a dialog between a computer and a user of the computer, the computer having an audio input device (Fig. 1, microphone 30) and an audio output device (computer speakers 23) comprising:

- a prioritized queue for retaining responses generated by the computer to spoken input from the user (responses to a user query) and received by the computer through the audio input device, wherein the responses in the prioritized queue are prioritized according to predefined rules other than the order in which the responses are added to the queue (column 4, lines 30-39);

- a dialog manager for placing the generated responses in the prioritized queue (audio only interface 28 places responses in the queue, column 4, lines 30-32);

- a turn manager for managing audible rendering of the responses from the prioritized queue through the audio output device, so that the user receives each response as part of a dialog between the computer and the user, the turn manager conducting the dialog in a polite manner that is subject to control by the user (see Fig. 3A (2), steps 48 and 50, once a response is selected from the queue, the user is queried to determine whether the user wants the response played, column 5, lines 61-65; this interaction is a "dialog between the computer and user", and since the user is

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queried as to whether they want to receive the response or not, it is inherently a "polite" dialog that is "subject to control by the user", see column 6, lines 5-27).

In regard to claims 3, 4, 9, 10, 15, and 16, Badt et al. disclose providing the audible rendering of the responses in a delivery mode subject to selection by the user, where the delivery mode is one of an immediate delivery mode (when a user responds with an affirmative answer, a check is made to see whether a message is currently playing, Fig. 3A (2), step 52; the user has the option to select whether the current message will be played back immediately by interrupting the previously selected response, Fig. 3F and 3G, column 6, lines 29-45; or whether the current message is played back after the previously selected response is completed, Fig. 3H, column 6, lines 46-49).

In regard to claims 5, 11, and 17, Badt et al. disclose the turn manager manages the audible rendering of the responses based on dialog states that specify the current state of the dialog between the computer and the user (Fig. 3A (2), step 50, depending on the user response, the dialog state branches to the appropriate state of the dialog to either play the selected response, or proceed to process the selected response according to one of the negative response alternatives, column 5, lines 61-65, and column lines 18-45).

In regard to claims 6, 12, and 18, Badt et al. disclose the response is an announcement of an event of interest to the user as determined by the computer (the priority is determined as a function of the content of the response and the current user, column 4, lines 34-39).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Claassen (U.S. Patent 6,647,363), in view of Monaco et al. (U.S. Patent 6,314,402), in further view of Surace et al. (U.S. Patent 6,334,103), and further in view of Strubbe et al. (U.S. Patent 6,721,706).

In regard to claims 1 and 19, Claassen discloses a computerized interface for managing a dialog between a computer and a user of the computer, the computer having an audio input device (Fig. 1, input interconnection 20, column 6, lines 18-21) and an audio output device (output interconnection 80, column 7, lines 54-57), the computerized interface comprising:

a dialog manager for generating responses (presentation manager 90 selects a presentation scenario from database 96 and fills in the presentation scenario with



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information supplied by dialog manager 50, column 7, line 62 through column 8, line 4);  
and

a turn manager for managing audible rendering of the responses through the audio output device, so that the user receives each response as part of a dialog between the computer and the user, the turn manager conducting the dialog that is subject to control by the user (dialog manager 50 determines what information the user is interested in, column 6, lines 52-54; and determines the intention of the user and passes this information to the presentation manager 90 to select an appropriate response, column 9, lines 36-38 and lines 58-63; presentation manager 90 then supplies the completed response to speech generation system 60, column 8, lines 4-6).

Claassen further discloses that presentation manager 90 determines if the information to be presented to the user exceeds a complexity level (column 10, lines 62-66). If so, the presentation manager prompts the user to determine if the user would like to receive all of the information (column 11, lines 16-20).

Claassen does not disclose that the responses are retained in a prioritized queue or that the dialog manager (presentation manager 90) places the generated responses in a queue.

Monaco et al. discloses an interactive voice response system that includes a prioritized queue for retaining responses (prompts). The prioritized queue allows a prompt to be constructed from multiple pieces (column 10, lines 32-37).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Claassen to include a prioritized queue so that if the user chose to

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receive the complex information, the complex information could be easily constructed from multiple pieces, as taught by Monaco et al. (column 10, lines 35-36).

Neither Claassen nor Monaco et al. explicitly disclose that the dialogs are conducted in a polite manner.

Surace et al. discloses a voice user interface with a personality that follows a set of politeness rules when interacting with the user (Fig. 7 and column 10, lines 9-21).

It would have been obvious to one of ordinary skill in the art at the time of invention to further modify the combination of Claassen and Monaco et al. to employ politeness rules to ensure the dialogs were conducted in a polite manner, since this would make the interaction more pleasant for the user.

Claassen, Monaco et al., and Surace et al. do not disclose the queue is prioritized according to predefined rules other than the order in which the responses are added to the prioritized queue.

Strubbe et al. disclose a computerized interface and method for conducting managing a dialog between a computer and a user of a computer, comprising prioritizing responses according to predefined rules other than the order in which the responses are added to the prioritized queue (templates selected to respond to a user's input are prioritized according to information such as the currency of the information, e.g. how recent the information is, column 17, lines 7-11 and lines 45-52).

It would have been obvious to one of ordinary skill in the art at the time of invention to further modify the combination of Claassen, Monaco et al., and Surace et al. to prioritize the queue according to predefined rules other than the order in which the

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responses are added to the queue, so that more relevant messages (according to the currency of the message, or the user's current state) could be presented before less relevant messages.

In regard to claims 7, 13, and 20, Claassen discloses a method for managing a dialog between a computer and a user of the computer, the computer having an audio input device (input interconnection 20, column 6, lines 18-21) and an audio output device (output interconnection 80, column 7, lines 54-57), the method comprising the computer-implemented steps of:

receiving responses generated by the computer to spoken input from the user and received by the computer through the audio input device (Fig. 2, step 213, column 11, lines 51-53);

managing audible rendering of the responses through the audio output device (step 250, generated phrases are uttered, column 12, lines 18-19), so that the user receives each response as part of a dialog between the computer and the user (after the generated phrases are uttered, the dialog phase at step 210 is reentered, wherein the user can continue the dialog at step 213, column 12, lines 30-31 and column 11, lines 51-53), the dialog conducted in a polite manner that is subject to control by the user (in step 214 it is determined which information the user is interested in, the intentions of the user serving to control which presentations are returned to the user as speech, column 11, lines 54-57, column 12, lines 2-7 and lines 16-19).

Claassen further discloses that presentation manager 90 determines if the information to be presented to the user exceeds a complexity level (column 10, lines 62-66). If so, the presentation manager prompts the user to determine if the user would like to receive all of the information (column 11, lines 16-20).

Claassen does not disclose placing the generated responses in a prioritized queue and managing the rendering of the responses from the queue.

Monaco et al. discloses an interactive voice response system that includes a prioritized queue for retaining responses (prompts). The prioritized queue allows a prompt to be constructed from multiple pieces (column 10, lines 32-37).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Claassen to include a prioritized queue so that if the user chose to receive the complex information, the complex information could be easily constructed from multiple pieces, as taught by Monaco et al. (column 10, lines 35-36).

Neither Claassen nor Monaco et al. explicitly disclose that the dialogs are conducted in a polite manner.

Surace et al. discloses a voice user interface with a personality that follows a set of politeness rules when interacting with the user (Fig. 7 and column 10, lines 9-21).

It would have been obvious to one of ordinary skill in the art at the time of invention to further modify the combination of Claassen and Monaco et al. to employ politeness rules to ensure the dialogs were conducted in a polite manner, since this would make the interaction more pleasant for the user.

Claassen, Monaco et al., and Surace et al. do not disclose the queue is prioritized according to predefined rules other than the order in which the responses are added to the prioritized queue.

Strubbe et al. disclose a computerized interface and method for conducting managing a dialog between a computer and a user of a computer, comprising prioritizing responses according to predefined rules other than the order in which the responses are added to the prioritized queue (templates selected to respond to a user's input are prioritized according to information such as the currency of the information, e.g. how recent the information is, column 17, lines 7-11 and lines 45-52).

It would have been obvious to one of ordinary skill in the art at the time of invention to further modify the combination of Claassen, Monaco et al., and Surace et al. to prioritize the queue according to predefined rules other than the order in which the responses are added to the queue, so that more relevant messages (according to the currency of the message, or the user's current state) could be presented before less relevant messages.

In regard to claims 2, 8, and 14, Claassen discloses the turn manager is subject to behavioral goals that include:

providing speech output including audible renditions of the responses when spoken to by the user (dialog manager 50 scans the output of speech recognizer 40 to determine the intention of the user, column 9, lines 36-42; presentation manager 90

then selects a presentation that is returned to speech generation system 60 for presentation to the user as speech, column 9, lines 58-63 and column 8, lines 4-6);

asking permission of the user before providing speech output based on delayed answers (details) and notifications (if the complexity of a presentation exceeds a threshold, presentation manager 90 asks permission before presenting the details to the user, column 11, lines 16-24); and

allowing the user to (ii) interrupt in the dialog (the system detects the barging-in of a user during a presentation, column 10, lines 24-26).

In regard to claims 3, 9, and 15, Claassen discloses the turn manager provides the audible rendering of the responses in a delivery mode subject to selection by the user (the user selects from various delivery modes such as 'fast', 'detail' and 'overview', column 9, lines 42-49).

In regard to claims 4, 10, and 16, Claassen discloses the delivery mode is one of an immediate delivery mode and a delayed delivery mode ('fast' delivery mode gives an immediate to the point presentation scenario, column 9, lines 46-49; while if the user selects a slower delivery mode, the information is presented in smaller pieces, providing a delayed delivery mode so the user can write down the information, column 10, lines 35-49).

In regard to claims 5, 11, and 17, Claassen discloses the turn manager manages the audible rendering of the responses based on dialog states that specify the current state of the dialog between the computer and the user (the moment that a user barges-in in a dialog is used to determine the intention of the user, the intention is then used to select what information is presented to the user by presentation manager 90, column 10, lines 47-58).

In regard to claims 6, 12, and 18, Claassen discloses the response is an announcement of an event of interest (departure/arrival times) to the user as determined by the computer (dialog manager 50 determines what information the user is interested in, column 6, lines 52-54; then provides the departure/arrival times to the user, column 8, lines 2-7).


### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian L. Albertalli whose telephone number is (571) 272-7616. The examiner can normally be reached on Mon - Fri, 8:00 AM - 5:30 PM, every second Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BLA 9/20/05

A handwritten signature in black ink, consisting of a series of loops and a long diagonal stroke at the end.

**W. R. YOUNG  
PRIMARY EXAMINER**